

**ABSTRACT OF THE DISCLOSURE**

Nucleic acid sequence including:  $P_x - S_x - B_n - (ZR) - \text{Hir}(\text{As}_m\text{R}) - \text{protein}(\text{Y}) - \text{T}$ .  $P_x$  is a promoter sequence.  $S_x$  is a nucleic acid encoding a signal sequence or leader sequence.  $B_n$  is 1-15 codons, when  $n$  is an integer from 1 to 15, or a chemical bond, when  $n = 0$ .  $Z$  is a codon for lysine or arginine.  $R$  is an arginine codon or a chemical bond.  $\text{Hir}$  is a nucleic acid sequence coding for hirudin or hirudin derivative which is at least 40% homologous to a natural hirudin isoform.  $\text{As}_m$  is a chemical bond, when  $m = 0$ , or 1-10 codons, when  $m$  is an integer from 1 to 10.  $\text{Protein}(\text{Y})$  is a nucleic acid sequence encoding a protein that is produced in and secreted by yeast.  $\text{T}$  is an untranslated expression-enhancing nucleic acid sequence. Proteins thereof, plasmids thereof, multicopy vectors thereof, host cells thereof, and processes thereof.

10076632-02481